

AMENDMENTS TO THE CLAIMS

1. (currently amended) An apparatus for treatment of cerebral aneurysms and AVMs, comprising:
 - a laser generating [ultraviolet] UV radiation;
 - a steerable guide wire including [having] an optical fiber including proximal and distal fiber ends [inside it], said fiber extended from the proximal to the distal end of the guide wire and coupled at [the] said proximal fiber end [proximal end coupled] to the laser;
 - an over-the-wire catheter having an occlusive balloon and a micro tube adapted for delivery of saline distally to the balloon for displacing blood from the aneurysm or AVM and clearing the optical field in front of the distal end of the optical fiber;

wherein said apparatus delivers ultraviolet radiation to the inside surface of the aneurysm or AVM so as to cause the death of a sufficient number of the endothelial cells on the irradiated surface of the aneurysm such that a mural thrombus is formed and the aneurysm is strengthened against rupture.
2. (currently amended) The apparatus of claim 1[, in which the] wherein the laser generates UV radiation in the range of 240 to 280 nanometers, corresponding to maximum UV absorption in DNA.

3. (currently amended) The apparatus of claim 1[, in which the] wherein said fiber distal end [of the fiber] is coupled to an optical tip adapted for scattering UV radiation in different directions for substantially complete irradiation of the inner surface of the aneurysm.

4. (currently amended) An apparatus for treatment of aneurysms comprising:
a laser generating ultraviolet radiation;
a steerable guide wire including proximal and distal wire ends;
an over-the-wire catheter including a wall and [having] at least one optical fiber
including proximal and distal fiber ends inside [its] said catheter wall,
[the] wherein said proximal fiber end [of said fiber] is coupled to the
laser[, the] and said distal fiber end is extended to [the] said distal end of
said catheter [the micro catheter], said [micro] catheter adapted for
delivery of saline for displacing blood from the aneurysm or AVM and
clearing the optical field in front of the distal end of the optical fiber;
wherein said apparatus delivers ultraviolet radiation to the inside surface of the aneurysm
so as to cause the death of a sufficient number of the endothelial cells on the irradiated
surface of the aneurysm such that a mural thrombus is formed and the aneurysm is
strengthened against rupture.

5. (original claim) The apparatus of claim 4, in which the laser generates UV radiation in the range of 240 to 280 nanometers, corresponding to maximum UV absorption in DNA.

6. (currently amended) The apparatus of claim 4 and including a plurality of optical fibers each including proximal and distal fiber ends, wherein at least one of said [, in which the] distal fiber ends is [ends of the fibers are] coupled to an optical tip [tips] adapted for scattering UV radiation in different directions for substantially complete irradiation of the inner surface of the aneurysm.

7. (Cancelled)

8. (Cancelled)

9. (currently amended) Apparatus for treatment of aneurysms comprising:
an ultraviolet radiation generator; and
a catheter including means for delivering the ultraviolet radiation to the aneurysm;
wherein said apparatus delivers ultraviolet radiation to the inside surface of the aneurysm so as to cause the death of a sufficient number of the endothelial cells on the irradiated surface of the aneurysm such that a mural thrombus is formed and the aneurysm is strengthened against rupture.

10. (currently amended)The apparatus of claim 9 wherein said catheter includes a passage and where said means for delivering comprises:
a guide wire having proximal and distal ends and being received within said passage and movable therein, said guide wire [having] including an optical fiber including a proximal fiber end [inside it], said fiber [extended]

extending from the proximal to the distal end of the guide wire and
coupled at the [distal] proximal fiber end [coupled] to said generator.

11. (currently amended) The apparatus of claim 10 wherein said catheter further includes an over-the-wire catheter [having] including an occlusive balloon and a micro tube adapted for delivery of an ultraviolet radiation transparent wash fluid distally to the balloon for displacing blood from the aneurysm to clear the optical field in front of the distal end of the optical fiber.

12. (currently amended) The apparatus of claim 11 wherein said ultraviolet radiation generator generates [UV] ultraviolet radiation in the range of about 240 to about 280 nanometers.

13. (currently amended) The apparatus of claim 10 wherein said fiber includes a distal fiber end and said fiber distal end is coupled to an optical tip adapted for scattering [UV] ultraviolet radiation in different directions for substantially complete irradiation of the inner surface of the aneurysm.

14. (original claim) The apparatus of claim 10 wherein said guide wire is steerable.

15. (original claim) The apparatus of claim 9 wherein said ultraviolet radiation generator is a laser.

16. (currently amended) The apparatus of claim 9 wherein said catheter includes a wall including [and] defining a passage therein and a guide wire received within said passage and movable therein and wherein said means for delivering comprises at least one optical fiber, said at least one optical fiber disposed within [in] said catheter wall.

17. (currently amended) The apparatus of claim 16 wherein said generator generates [UV] ultraviolet radiation in the range of about 240 to about 280 nanometers.

18. (currently amended) The apparatus of claim 17, wherein said at least one optical fiber has a distal fiber end and wherein said apparatus further comprises an optical tip coupled to said distal fiber end, said optical tip being provided [adapted] for scattering [UV] ultraviolet radiation in different directions for substantially complete irradiation of the inner surface of the aneurysm.

19. (Cancelled)

20. (Cancelled)

21. (Cancelled)